

REMARKS

Favorable reconsideration of this application, in light of the preceding amendments and following remarks, is respectfully requested.

Claims 1-8, 10-12 and 16-19 are pending in this application. Claim 6 is amended and claims 9, 14-15 and 20 have been cancelled. Claims 1-5, 10-12, 18 and 19 have been withdrawn from consideration. Claims 1, 6 and 10 are the independent claims.

Applicants note with appreciation the Examiner's acknowledgement that the formal drawings filed on March 11, 2005 have been accepted.

Claim Objections

Claims 14, 15 and 20 have been objected to under 37 C.F.R. § 1.75 (c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicants have cancelled claims 14, 15 and 20, and therefore, withdrawal of the claim objections is respectfully requested.

Example Embodiments of the Present Application

Independent claim 6 recites a method for producing a polymer with dispersed fine metal particles including preparing a metal ion-containing polymer having a structure in which the metal ion is intercalated between layers of a lamellar crystalline organic polymer, by mixing the lamellar crystalline organic polymer including a topochemical polymer of muconic acid or a topochemical polymer of muconic acid benzylammonium with a substance containing the metal ion, said

substance containing the metal ion being a metal hydroxide, said mixing being conducted by impregnating or dispersing said lamellar crystalline organic polymer for 20 to 60 minutes in a methanol solution containing said hydroxide in an amount of not less than 1 mol/L, and reducing the metal ion in said metal ion-containing polymer so as to obtain the fine metal particles. Example non-limiting embodiments of this feature are discussed throughout the instant specification, for example, page 15, line 24 – page 16, line 8; page 19, line 14 –page 20, line 12; page 25, lines 4-14; page 32, lines 16-23; and page 39, line 15 – page 44, line 5 (Examples 1-4) of the specification as filed. An organic polymer used in the polymer with dispersed fine metal particles of independent claim 6 is crystalline, which allows for fine metal particles to be hardly eluted on a surface of the obtained polymer with dispersed fine metal particles.

Rejections under 35 U.S.C. § 103

Matsumoto in view of Kotelnikova

Claims 6, 9, 14-15 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nature*, Vol. 405, pp. 328-330, May 18, 2000 by Matsumoto et al. (“Matsumoto”) in view of *Cellulose Chem. Technol.*, vol. 36, no. 5-6, pp. 445-458 (2002) by Kotelnikova et al. (“Kotelnikova”). Applicants respectfully traverse this rejection for the reasons detailed below.

Applicants submit that neither Matsumoto, Kotelnikova, nor the combination thereof teach or suggest all of the limitations of amended claim 6. Further, Applicants respectfully submit that one of ordinary skill in the art

would not combine Matsumoto and Kotelnikova to render obvious the method for producing a polymer with dispersed fine metal particles as recited in amended claim 6, for example, a method for impregnating or dispersing a crystalline organic polymer for 30 to 60 minutes in a methanol solution containing the hydroxide in an amount of not less than 1 mol/L, the crystalline organic polymer being polymuconic acid or polymuconic acid benzylammonium obtained through a topochemical polymerization, because it is difficult even for a person skilled in the art to arrive at a production method constituted by combining a plurality of specific conditions.

The Applicants, therefore, respectfully request that the rejection to Claim 6, 9, 14-15 and 20 under 35 U.S.C. § 103(a) be withdrawn.

Matsumoto in view of Kotelnikova and Won

Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumoto in view of Kotelnikova and JP 2002-179931 to Won et al. ("Won"). Applicants respectfully traverse this rejection for the reasons detailed below.

Even assuming *arguendo* that Matsumoto and Kotelnikova could be combined with Won (which Applicants do not admit), the Examiner has failed to show how Won remedies the deficiencies of Matsumoto and Kotelnikova with respect to independent claim 6. Thus, claim 7 is patentable over Matsumoto and Kotelnikova and Won for the reasons set forth above with respect to independent claim 6.

The Applicants, therefore, respectfully request that the rejection to Claims 7 and 8 under 35 U.S.C. § 103(a) be withdrawn.

Matsumoto in view of Kotelnikova and Seita

Claims 16-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumoto in view of Kotelnikova and of U.S. Publication No. 2004/0072015 to Seita et al. ("Seita"). Applicants respectfully traverse this rejection for the reasons detailed below.

Even assuming *arguendo* that Matsumoto and Kotelnikova could be combined with Seita (which Applicants do not admit), the Examiner has failed to show how Seita remedies the deficiencies of Matsumoto and Kotelnikova with respect to independent claim 6. Thus, claim 7 is patentable over Matsumoto and Kotelnikova and Seita for the reasons set forth above with respect to independent claim 6.

The Applicants, therefore, respectfully request that the rejection to Claim 16-17 under 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION

In view of the above remarks and amendments, the Applicants respectfully submit that each of the pending objections and rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to contact the undersigned.

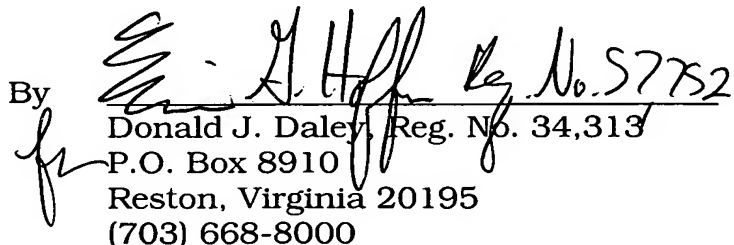
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Erin G. Hoffman, Reg. No. 57,752, at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By


Donald J. Daley, Reg. No. 34,313
P.O. Box 8910
Reston, Virginia 20195
(703) 668-8000

DJD/EGH:ljs